[285] The diver holds onto another line to which is tied an open-weave palm leaf basket for 228 the oysters; sometimes the diver has the oyster basket tied to his waist or around his neck and has the line tied to his body. When the diver is ready to come up, he gives several tugs on the rope. Thus the diver does not have to waste his valuable energy in swimming up or down. When he first reaches the bottom, he attempts to go out perpendicularly from the boat, frantically plucking all the oysters he can see before his air gives out. The diver usually crawls on one hand and one foot, using the other foot to propel himself and his free hand to collect the oysters.

228 The divers wear a horn noseclip similar to a clothespin; this 292 keeps the water out of their noses and enables them to hold their breath longer. Sometimes a diver will stuff cotton or beeswax into his ears to keep the water out. A set of leather finger thimbles protects his fingers from coral and other sharp objects; he wears only a loin cloth. This is the equipment universally used in the Persian Gulf, whether the diver is out of Kuwait, Bahrein, the Trucial Coast, or Persia. These divers wear no goggles and many [164] have impaired vision from trachoma, so their efficiency is cut down considerably. It is strange that the Arabs have not added at least eye socket goggles, which the South Sea Island and Philippine pearl divers have eagerly accepted.

228 Alan Villiers states that the Kuwait pearl divers make ten 461 consecutive dives and then rest while a "substitute" makes ten; these two divers have the same attendant.[24] Divers in other parts of the Gulf work continuously, taking a rest all together at certain predetermined times, sometimes corresponding with prayer-time.

The diver stays under about a minute, then rests for two or three.[25] Ten dives would consume about three-quarters of an

[24] A. Villiers, *op. cit.*, p. 392.

[25] The average length of time that a diver stays under water has long been a controversial question. Alan Villiers (*op. cit.*, p. 392), who spent two months with the Kuwait pearling fleet, states that the divers averaged about a minute, ranging from 40 to 90 seconds. O'Shea (*op. cit.*, p. 137), spending some time among the Trucial coast pearlers, states that divers there remain under water from 40 to 75 seconds, also averaging about one minute. Whitelock (*op. cit.*, p. 43), who visited the Trucial coast pearl fisheries one hundred years ago, stated that the divers averaged about 40 seconds under water, but that he never saw them remain over a minute. Hugh Smith (*op. cit.*, p. 283) states that in the Ceylon fisheries the Arabs are the best divers, staying down from 60 to 75 seconds, with a normal maximum of 90 seconds, and that there is an authentic case of an Arab staying under 109 seconds in seven fathoms of water. In any

1: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

hour, after which time the Kuwait diver is dragged out of the water and huddles in some spot on the ship looking more dead than alive. He may average four shifts a day, making a total of 40 dives; O'Shea states that under excellent conditions the Trucial divers average 50 dives a day.[28] During this time he has spent almost one hour under water. Ten dives are not difficult, nor are 50 excessive in one day for anyone experienced; but day after day and week after week the diving goes on — for four months. When the season is over, the diver has weathered the impossible; he has probably completed over 3,000 dives in from 30 to 50 feet of water, and has spent over 50 hours under the surface of the Persian Gulf — that is, over a full forty-hour week without air, valiantly striving to gather all the oysters he can see through his blood-shot and irritated eyes, which become less sensitive with each dive.

Every ten days or so the divers do get a day of rest, and if the *shamal* is blowing they have to wait it out, as it roils the water. Occasionally they have to go ashore to bury a diver who fails to complete his 3,000 dives. It is not surprising that there are one or two empty stations on each boat; their occupants lie huddled corpse-like under their cloaks in some part of the ship, too sick from scurvy or plain fatigue to dive. After they have been at it for many weeks, the divers are apt to get convulsive shivers when they come out of the water for their rest, even though the temperature may be 110° F. and their tenders are covered with a lather of sweat. There are few, if any, white men who could endure just one day of such punishment; the Arab could not either except for his belief that Allah is merciful and that a Paradise awaits him.

Every dhow has to put in for water and food every three weeks or so. In recent years the pearling fleet has used the oil company's pier at Ras Tanura for water, but vessels have been known to replenish their water supply from some of the submarine springs which gush into the Persian Gulf. A diver goes down with an empty skin and opens it in the potable stream; he can bring up fairly fresh water by this means. One of these submarine springs,

---

case stories one hears about the amazing power of the Arabs to stay under water from 5 to 10 minutes or more are absurd.

[28] R. O'Shea, *op. cit.*, p. 137.

1: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

feet in diameter, it is easily seen under water, and thus more easily avoided than the *dawl*. The Arabs have no fear of the sea turtle and they relate that when they find one of these on the pearl banks, they ride it to the surface by grabbing it behind the neck and directing it upward.

But the dangers from sharks and devilfish (rays) are slight compared to the physical danger resulting from simply driving oneself past the limit of human endurance. The "bends" are a common affliction among the divers and may cause severe pains in the joints, paralysis, or even death. Suppuration of the eardrums and rheumatism are also common. The divers may lose blood from surfacing too quickly or from staying under too long; Frederick Simpich tells of seeing a man come up from a 10-fathom dive bleeding at the nose as if someone had hit him with a ball bat.[21] Whitelock states that the divers of the Trucial Coast were very emaciated and suffered from inflamed eyes, which they treated with antimony.[22]

Divers never eat while working, except for a sip of tea or water, as food would cause nausea. When the sun has sunk so low that diving stops, they eat a few dates or a little rice and drink a little tea, but that is all. This is one of the reasons why they become so weakened and emaciated during a season. Sleep is the only energy builder the divers have.

OPENING THE OYSTERS

With dawn the first activity of the day is the opening of the oysters caught the day before. By this time the oysters have been out of the water long enough for their shells to open, so that one does not have to fight them. The oysters are not divided according to divers, but are simply piled in sacks on the deck, so that no one knows exactly who caught the one that may contain the great pearl. After the valves are parted, the openers knead through the flesh, extract any pearls, and throw the shells and the meat overboard. Less than one-third of the oysters yield pearls and these are mostly "seed pearls," those very small irregularly-shaped pearls which might well be called "pearl dust."

[21] F. Simpich, *National Geographic Magazine*, vol. 36 (1919), pp. 369–93.
[22] H. H. Whitelock, *op. cit.*, pp. 38, 44.

2: Villiers T-S (1938-39) 1948 MK2 Maritime Arabs MK2
Kuwait MI1
Zanzibar FM1

K
MA
439

of them Arab. I noticed in the registry office of the Customs building that some were entered as Somali, and a few were registered in the Hadhramaut. No longer did they bring down picturesque cargoes of myrrh and frankincense (if they ever did) or ship out slaves and ivory, ambergris and hippopotamus teeth. They brought salt and dried fish; and when they came, the quantities of hashish and other drugs in the town showed a significant increase. They loaded little at Zanzibar for the homeward voyage, but went on down to the coast of Tanganyika.

We completed the discharge of our outward goods at Zanzibar, and the crew busied itself for weeks selling Hadhramaut basketware and Aden haberdashery — port of origin, Yokohama. When we sailed, leaving our *nakhoda* behind, our only cargo was the parcel of condemned dates, which the Somali would not have. We passed on down to the delta of the Rufiji River, a place given up to mosquitoes, malignant malaria fever, monkeys, sad Swahili, rain, and the best mangrove poles in the world. Here we lay six weeks, while a cargo of some 142 score of poles was laboriously cut and loaded. For this work, Swahili were engaged to help our crew, and at last the bad dates found consumers. The mangrove poles were ferried out in the dhow's longboat, and paid for in silver shillings to a white supervisor. There were some twenty dhows loading in the Rufiji delta at the time, all for the Persian Gulf.

MA
[164]

It struck me as strange that the dhow should spend so much time embarking a cargo in which the total investment was less than $500, for no matter how I tried to figure things out, I did not see how it could possibly be worth her while to haul such a paltry cargo so long a distance, or how she could make enough from it to show a reasonable profit on the voyage. There was certainly something mysterious about this mangrove pole business, and the white supervisor, energetic as he was, by no means knew all that went on. I noticed later, when we sold our cargo to King Ibn Saud's agents at Bahrein for use in a new palace at Riyadh, that the Arab receipt was for 295 score, and the price paid, over 4,000 rupees, approximated $1,200.

MA
505
567
2
656

There was some attempt in Zanzibar to regulate the dhow traffic, and precautions were taken to see that there was no slaving, under any guise. A local act requires that evidence be shown

3: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

stinging tentacles that can easily put out an eye. There is also a needle urchin (*Diadema*), first reported from the Persian Gulf in 1949.[9] This urchin has spines more than a foot long, which can cause nasty, slow-healing wounds. However, as the urchin is several feet in diameter, black, and slow-moving, it is more easily avoided than the dawl.

Pearl divers suffer from a variety of diseases, most of which can be directly traced to their occupation. Open sores and skin ulcers result from encounters with the dawl and scrapes against coral and other sharp objects. Suppuration of the eardrums, rheumatism, and nosebleeds are common. Inflamed eyes are always a sign of the pearl diver. Persian Gulf divers are more susceptible to the "bends" than divers who use suits, since they must surface as rapidly as possible.

Divers never eat while they are working. When the day's diving is finished, the diver has some rice, dates, and tea, but not much else; sleep is his only energy builder. Every 10 days or so the divers get a rest, and every three weeks or so the dhows put in for food and water unless they have been revictualed at sea.

In recent years Ras Tanura has become a center of activity for the pearling fleet off its shores; for the oil company's installations can now pump an abundance of fresh water into the water tanks of the dhows much faster than it can be transferred by waterskins. The larger vessels anchor for the night on the banks; the smaller vessels sometimes take shelter if it is available. Some vessels of the pearling fleet replenish their water supply from the submarine springs that gush into the Persian Gulf in numerous places along the Arabian littoral. Relatively fresh water can be brought up in a waterskin by a diver. One of these springs, marked by a spar buoy, is to be found a few miles north of Jubail.

The first duty of the day on a pearling dhow is opening the previous day's oysters, which are heaped on deck in a large pile so that no one knows who found the oyster which may produce the rare gem. The muscles of the oysters relax enough overnight so that it is not difficult to open them. Less than a third of the oysters yield pearls, and these are usually only very small seed pearls.

Pearls are sometimes bought on the pearl banks by brokers who travel around in their own boats trying to get the best pearls before other brokers hear of them, and trying to get a valuable pearl before a nakhoda realizes its value. But whether the pearls are sold on the banks or at Bahrein, they

[9] A. H. Clark and R. LeB. Bowen, Jr., Echinoderms of Tarut Bay and Vicinity, Saudi Arabia, *Amer. Museum Novitates*, No. 1390, 1949.

5: Harrison D-4 (1912-1924) 1924 M1 Middle East
Maritime Arabs MK2
Bahrain MZ2

such a number of chronic running ears. The lungs are often affected, and all along the diving coast pulmonary tuberculosis is common. This is not remarkable when we know that in the opening days of the season the men frequently dive in water that is so cold that they spit blood. Many return from their summer of semi-starvation and unsuitable diet of rice and dates with their gums sore and bleeding from scurvy.

Living conditions in the community are what might be expected. Disease is common. The death rate is high. Poverty is universal. In good years the standard of life is none too high. In bad years it is reduced almost to the starvation point. During a hard year the food of the divers is poor in quality and scanty in amount almost to the degree of partial starvation. They usually live in date-stick huts, and in the winter must frequently shiver in unwarmed houses because they have no money for fuel.

In such communities there is little or no interest in education. A diver has reason enough, one might suppose, for wanting to know how to read and write and keep his own accounts, but it is rare that one of them knows as much as that, and apparently it is equally unusual to find one who is trying to educate his children so that they may escape the slavery that binds him. The boys are frequently taken out to learn pearl diving while they are still under twelve. In Bahrein the American Mission has tried for many years to develop educational work of an elementary sort, but has found it practically impossible because there is no demand for such things. The considerable Persian community in the city has made efforts from time to time to establish educational work for its own boys. The Persian schools exist for a little

1 [of pearl divers -- Analyst]